



The Human Effectiveness Directorate is composed of a diverse group of scientists and engineers studying and developing technologies specific to the human element of warfighting capability.

Vision

Unleash the power of human performance through technology

Mission

Provide science and leading edge technology to:

- Define human capabilities, vulnerabilities, and effectiveness
- Train warriors
- Integrate operators and weapon systems
- Protect Air Force people
- Sustain aerospace operations

Execution

Our portfolio of scientific endeavors are grouped into three capability-focused areas (or Thrusts) that deliver value to the warfighter. These are depicted on the adjoining pages.

Train as We Fight

Goal: Enable warfighters to train as they fight by advancing education and training technologies and methods to provide required mission competencies for the expeditionary aerospace force.

Areas of study and development:

- Skill Development
- Training Simulation



TRAIN AS WE FIGHT

Decision Effectiveness

Goal: Enable improved decision effectiveness for all warfighters by advancing cognitive modeling science, task critical information portrayal, and decision support technology.

Areas of study and development:

- Information Portrayal
- Decision Making
- Human-System Representation



DECISION EFFECTIVENESS

Immunity from Threat

Goal: Predict and mitigate the influence of aerospace stressors, toxic hazards, and directed energy to maximize immunity from threats.

Areas of study and development:

- Directed Energy Bioeffects
- Physical Stressors
- Toxic Hazards



IMMUNITY FROM THREAT

ANTHROPOMETRY

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Laser Eye Protection

Integrated Panoramic Night Vision Goggles

Advanced Navigation & Targeting Displays

PHYSIOLOGY

Active Bioacoustic Protection

NETWORK

Weapon-System Specific Training Research

Advanced Flightline Maintenance & Troubleshooting

SCIENCE

ating the Warfighter

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Human Effectiveness Directorate

U.S. AIR FORCE

AFRL

Science and Technology for Tomorrow's Aerospace Force

The graphic features a blue background with a large, stylized, metallic-looking structure resembling a DNA helix or a complex network of fibers. Overlaid on this are several images: a person in a flight suit, a person in a cockpit, a person in a control room, a person in a laboratory setting, and a person in a flight suit. The text 'Human Effectiveness Directorate' is prominently displayed at the top in a large, bold, white font. Below it, the 'U.S. AIR FORCE' logo is visible. At the bottom, the 'AFRL' logo and the tagline 'Science and Technology for Tomorrow's Aerospace Force' are present.



Air Force Research Laboratory AFRL
Science and Technology for Tomorrow's Aerospace Force

Human Effectiveness Directorate

Airborne Command and Control

Ejection Safety

Ergonomic Flight Gear

Biohazard and Toxicology Research

Distributed Mission Training

Integrating



Distributed Mission Training

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